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PENNSYLVANIA DEPARTMENT OF AGRICULTURE
BUREAU OF PLANT INDUSTRY
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THE COMMON BEAN WEEVIL (Bruchus obtectus Say.)

The adult of the bean weevil is a "snout" beetle about one-eighth of an inch long. It is brown-gray or olive in color. The initial infestation of the bean takes place in the field the adult laying her eggs upon the pod, in holes in the pod made by the jaws, or in cracks caused by drying or splitting of the pods. The eggs hatch in from five to twenty days, depending upon the weather; the larva enters the bean, where it eats and lives until it emerges as an adult. The larval period lasts from eleven to forty-two days, and the pupal stage from five to eighteen days. For the entire life cycle a period varying from twenty-one to eighty days is necessary, depending upon the time of year and the locality. Several generations, probably four or five, are produced each year in Pennsylvania.

From one to twenty-eight larvae have been found in a single seed. Infested beans are not good for seed, and should not be planted, because while 50 per cent of the beans may germinate, the injury done to the seed leaves by the weevils is such that the plants will not be vigorous nor productive. There is no method of preventing the infestation of the beans in field that is practicable. As the beans are infested when they come from the field, they must be treated to prevent any further damage.

One of the best methods of exterminating the bean weevil in the seeds is fumigation with carbon bisulphide. This must be done in an air-tight receptacle. Place the carbon bisulphide in a shallow pan on top of the beans, close the receptacle tight, and let it stand forty-eight hours without opening. Use one ounce to the bushel of beans. The temperature of the beans to be treated should be 60 degrees F. or more. Failure to kill will result if the temperature is lower than 60 degrees.

Carbon bisulphide is a colorless liquid with strong odor. It volatilizes upon coming in contact with the air, and the resulting gas is heavier than air, so will sink to the bottom of the receptacle holding the beans. KEEP IT AWAY FROM ALL LIGHTS AND FIRES, AS IT IS HIGHLY EXPLOSIVE.

Heat is also a good method of killing the larvae in the beans. If the beans are heated to 125 degrees F., and held at that temperature for half an hour, all stages of the insect will be killed. Spread the beans out thinly (one inch deep) in shallow pans, and place in the oven. Leave the door ajar, and raise the temperature to 125 degrees F., or 130 degrees F. It must not reach 140 degrees F. or higher, as there is danger of injuring the germination qualities of the beans.

Air-slacked lime is a preventative from further injury to the beans, the larvae in the beans will mature and the adults emerge, but another generation will not develop. For small quantities of beans, one-half peck to three bushels, use equal parts of air-slacked lime and beans, mixing them thoroughly. Be sure that the top is covered with lime.